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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,439	10/21/2003	Geoffrey A. Lauinger	10388US01	3707
7590 Imation Corp. PO Box 64898 St. Paul, MA 55164-0898	04/11/2007		EXAMINER NGUYEN, TAI V	
			ART UNIT 3729	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE 3 MONTHS		MAIL DATE 04/11/2007	DELIVERY MODE PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/690,439	LAUINGER ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Tai Van Nguyen	3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 26 January 2007.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 23-32 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-7, 11-18, 22 and 33 is/are rejected.
- 7) Claim(s) 8-10 and 19-21 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Response to Amendment***

1. The Applicants' amendment filed 1/26/2007 has been fully considered and made of record.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-4, 6, 14, 18 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Enoch (US 2,662,357) in view of J. W. Wenner (US 3,150,939).

As applied to claims 1-4, 6 and 18, Enoch discloses a method of manufacturing media reference surfaces for use in a flexible data storage card comprising: providing a metal sheet (1, Fig. 1) having a first side and a second side; and processing the metal sheet into a plurality of media reference surfaces as read surface metal sheet (e.g. 1), each media reference surface characterized by having at least one curved edge adjacent the optically smooth surface (see Fig. 1); where in the step of processing the metal sheet is characterized by an absence of hand polishing.

However, Enoch does not disclose at least one side having an optically smooth surface characterized by an average surface roughness not greater than 8 micro-inch.

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Wenner teach an average roughness not greater than 8 micro-inch (see column 3, lines 8-12).

Note: Since Enoch does not polish, then Enoch meets the limitations of "wherein ... of hand polish" (lines 9-10 of claim 1).

As applied to claim 14, Enoch processing the metal sheet into the plurality of media references includes process the metal sheet into a plurality of head zero components as read metal sheet (e.g. 1) head zero components.

As applied to claim 33, Wenner disclose providing a metal sheet includes providing a non-perforated metal sheet as read magnetizable layer 3 non-perforated.

It would have been obvious to one of ordinary skill in the art at this time the invention was made to have modified the method of Enoch by including an average roughness surface, as taught by Wenner, to positively improved a surface of record having a magnetic recording medium (column 1, lines 11-14).

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Enoch in view of Wenner and further in view of B. Solow (US 2,743,506).

As applied to claim 7, Enoch modified of Wenner the method substantially as claimed above. However, the modified method of Wenner does not teach that the step of processing the metal sheet includes shearing the metal sheet with a die and a punch to form the plurality of media reference surfaces. Solow, teach the step of processing the metal sheet includes shearing the metal sheet with a die and a punch to form the plurality of media reference surfaces (see sequence Fig. 1-5).

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It would have been obvious to one ordinary skill in the art at this time the invention was made to have modified the Enoch method by including a die and punch to form the plurality of media reference surface, as taught by Solow, to positively improve the punching force required is correspondingly reduced and the shock effect on the sheet greatly diminished (column 70-72).

5. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Enoch in view of Wenner and further in view of Hida et al (US 4,841,134).

As applied to claim 13, Enoch modified of Wenner the method substantially as claimed above. However, the modified method of Wenner does not teach that the step of the metal sheet into the plurality of media reference surfaces includes photo-etching. Hida et al teach the metal sheet into the plurality of media reference surfaces includes photo-etching (column 7, lines 6-10).

It would have been obvious to one ordinary skill in the art at this time the invention was made to have modified the Enoch method by including a photo-etching, as taught by Hida et al, to positively provide synergistically excellent mechanical strength and flexibility (column 1, lines 54-56).

6. Claims 11-12 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Enoch in view of Wenner and further in view of J. F. Steger et al (US 3,583,887).

As applied to claims 11, 12 and 16, Enoch modified of Wenner the method substantially as claimed above. However, the modified method of Wenner does not teach that the step the metal sheet into the plurality of media reference surfaces

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includes cold forming the metal sheet. Steger et al teach the metal sheet into the plurality of media reference surfaces includes cold forming the metal sheet (column 1, lines 46-48).

As applied to claim 17, Steger et al disclose the coil roll of metal sheeting including providing a coiled roll of metal sheeting having a protective coating in contact with the optically smooth surface (column 4, lines 50-62).

It would have been obvious to one ordinary skill in the art at this time the invention was made to have modified the Enoch method by including a cold forming the metal sheet, as taught by Steger et al, to positively improve properties of the coating composition (column 5, lines 37-38).

7. Claim 22, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Enoch in view of Wenner and further in view of Scheffel (US 3,935,431 ).

As applied to claim 22, Enoch modified of Wenner the method substantially as claimed above. However, the modified method of Wenner does not teach that the step of the media reference surface is configured for use in a flexible data storage card. Scheffel teach the step of the media reference surface is configured for use in a flexible data storage card (column 4, lines 54-64).

It would have been obvious to one ordinary skill in the art at this time the invention was made to have modified the Enoch method by including a flexible data storage card, as taught by Scheffel, to positively provide the storage and reading of binary portrayed data with a data carrier (column 1, lines 65-68).

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8. Claims 5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Enoch in view of Wenner.

Regarding to claims 5 and 15, it would have been matter of engineering design to choose any desired the one curved edge with a radius of curvature the range of 0.001 to 0.007 inch and the metal sheet providing an elongate metal sheet having a length that is greater than a width of the metal sheet by a factor of approximately 10, since applicants have not that the claimed dimensions of a curve edge and of the metal sheet, solve any problem or is for any particular purpose and it appear that the invention would perform well with a curve and the length of the applied art above.

***Allowable Subject Matter***

9. Claims 8-10 and 19-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

10. Applicant's arguments filed 1/26/2007 have been fully considered but they are not persuasive.

The applicants contend that Enoch in view of Wenner does not teach: "providing a metal slant having a first side and a second side at least one side having an optically smooth surface characterized by an average surface roughness not greater than 8 micro-inch" (as recited in claim 1, lines 3-5).

The examiner traverses for at least following reason:

This feature was relied upon in Wenner (column 3, lines 4-47) as the surface that Wenner discusses is an "optical smooth surface", having a roughness in order of 2 to 4 micro-inches.

Therefore, the claims do not distinguish over the reference Wenner.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

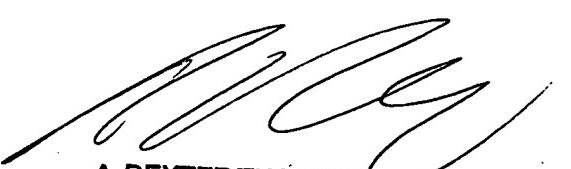
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tai Van Nguyen whose telephone number is 571-272-4567. The examiner can normally be reached on M-F (7:30 A.M - 4:30 P.M).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TN. March 26, 2007



A. DEXTER TUGBANG  
PRIMARY EXAMINER